

# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

## Trial Information

Trial Sponsor(s): FMC

Objective: Evaluate the efficacy and crop safety of Authority brand herbicides with and without metribuzin and similar competitor PRE herbicides in Enlist soybeans

Crop: Enlist Soybean

Variety: S20-E3

Weed species (pressure): giant ragweed (high-very high)  
lambsquarters (moderate)  
velvetleaf (low)

Herbicide Application(s): PRE – 5/17  
POST – 6/13 (V1 soybean)  
LPOST – 7/7 (R1 soybean)

For the full report see trial #22-ROK-SB13 in the [2022 Wisconsin Weed Science Research Report](#)



**Cropping Systems Weed Science**  
UNIVERSITY OF WISCONSIN-MADISON



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Trt #	Herbicide (rate acre <sup>-1</sup> )	Injury (%)		Giant Ragweed (%)				Lambsquarters (%)			Velvetleaf (%)			Yield <sup>b</sup> bu acre <sup>-1</sup>
		6/7	6/13	6/13	6/28	7/7	10/11	6/13	6/28	10/11	6/13	6/28	10/11	
1	Untreated Check	0.0	0	0	0	0	0	0	0	0	0	0	0	0 c
<b>Two-Pass – PRE (5/17) fb POST<sup>c</sup> (6/13) fb LPOST<sup>d</sup> (7/7)</b>		<b>POST</b>				<b>LPOST</b>				<b>POST</b>				<b>POST</b>
2	Authority Supreme (8 fl oz)	0.0	0	10	83	72	95	99	100	100	86	100	100	71.6 ab
3	Authority Supreme (8 fl oz) + Metricor DF (6 oz)	0.0	0	8	82	72	93	100	100	100	98	100	100	70.9 ab
4	Authority Elite (25 fl oz)	0.0	0	11	82	72	91	95	100	100	75	100	100	73.5 ab
5	Authority Elite (25 fl oz) + Metricor DF (6 oz)	1.0	0	26	83	72	89	100	100	100	80	100	100	71.4 ab
6	Authority First (6.4 oz)	0.8	0	78	83	71	100	100	100	100	96	99	100	72.8 ab
7	Authority First (6.4 oz) + Metricor DF (6 oz)	1.5	0	71	81	70	100	100	100	100	94	100	100	75.3 a
8	Kyber (1 pt)	4.8	0	59	80	67	97	100	100	100	98	100	100	74.5 ab
9	Zidua PRO (6 fl oz)	1.5	0	73	83	71	98	100	100	100	100	100	100	73.8 ab
10	Boundary (29 fl oz)	1.5	0	11	83	72	96	95	100	100	86	99	100	69.5 b
11	Anthem Maxx (4 fl oz)	1.3	0	3	83	74	95	60	99	100	63	98	100	70.9 ab
12	Anthem Maxx (4 fl oz) + Metricor DF (6 oz)	0.5	0	13	83	72	92	100	100	100	98	100	100	71.2 ab
<b>LSD (<math>\alpha=0.10</math>)</b>		<b>1.8</b>	<b>ns</b>	<b>18</b>				<b>8</b>			<b>12</b>			<b>5.6</b>
<b>p value</b>		<b>.006</b>	<b>1.0</b>	<.001				<.001			<.001			<0.001
				0.942				0.791			0.575			
				0.480				1.0			1.0			

<sup>a</sup>Visual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

<sup>b</sup>Yield values with the same letter are not significantly different.

<sup>c</sup>POST application - Enlist One (32 fl oz) + Roundup PowerMAX3 (32 fl oz) + AMS (8.5 lb/100 gal) applied to all treatments except the untreated check.

<sup>d</sup>LPOST application - Liberty (32 fl oz) + AMS (2 lb/a) applied to all treatments except the untreated check.

# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 6/7  
21 days after the PRE application

**21 days after PRE (6/7)**  
**Untreated Check**



**21 days after PRE (6/7)  
PRE: 8 fl oz Authority Supreme**



21 days after PRE (6/7)

PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF



**21 days after PRE (6/7)  
PRE: 25 fl oz Authority Elite**



21 days after PRE (6/7)

PRE: 25 fl oz Authority Elite + 6 oz Metricor DF



**21 days after PRE (6/7)  
PRE: 6.4 oz Authority First**



21 days after PRE (6/7)

PRE: 6.4 oz Authority First + 6 oz Metricor DF



21 days after PRE (6/7)  
PRE: 1 pt Kyber



**21 days after PRE (6/7)  
PRE: 6 fl oz Zidua PRO**



**21 days after PRE (6/7)  
PRE: 29 fl oz Boundary**



**21 days after PRE (6/7)  
PRE: 4 fl oz Anthem Maxx**



21 days after PRE (6/7)

PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF



# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 6/13  
27 days after the PRE application  
The day of the POST application

The number in the upper right-hand corner is the average %  
giant ragweed control of 4 replications

**27 days after PRE (6/13)**

**Untreated Check**

**0%**



**27 days after PRE (6/13)**  
**PRE: 8 fl oz Authority Supreme**

**10%**



27 days after PRE (6/13)

PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF

8%



**27 days after PRE (6/13)  
PRE: 25 fl oz Authority Elite**

**11%**



27 days after PRE (6/13)

PRE: 25 fl oz Authority Elite + 6 oz Metricor DF

26%



**27 days after PRE (6/13)  
PRE: 6.4 oz Authority First**

**78%**



27 days after PRE (6/13)

71%

PRE: 6.4 oz Authority First + 6 oz Metricor DF



27 days after PRE (6/13)

PRE: 1 pt Kyber

59%



27 days after PRE (6/13)

PRE: 6 fl oz Zidua PRO

73%



27 days after PRE (6/13)  
PRE: 29 fl oz Boundary

11%



**27 days after PRE (6/13)  
PRE: 4 fl oz Anthem Maxx**

**3%**



27 days after PRE (6/13)

13%

PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF



# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 6/28  
42 days after the PRE application  
15 days after the POST application

The number in the upper right-hand corner is the average %  
giant ragweed control of 4 replications

**42 days after PRE (6/28)**

**Untreated Check**

**0%**



15 days after POST (6/28)

PRE: 8 fl oz Authority Supreme *fb*

83%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS



**15 days after POST (6/28)**

**PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF *fb***

**82%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**



**15 days after POST (6/28)**

**PRE: 25 fl oz Authority Elite *fb***

**82%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**



**15 days after POST (6/28)**

**PRE: 25 fl oz Authority Elite + 6 oz Metricor DF *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**83%**



**15 days after POST (6/28)**

**PRE: 6.4 oz Authority First *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**83%**



**15 days after POST (6/28)**

**PRE: 6.4 oz Authority First + 6 oz Metricor DF fb**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**81%**



15 days after POST (6/28)

PRE: 1 pt Kyber fb

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS

80%



**15 days after POST (6/28)**

**PRE: 6 fl oz Zidua PRO fb**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**83%**



**15 days after POST (6/28)**

**PRE: 29 fl oz Boundary *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**83%**



**15 days after POST (6/28)**

**PRE: 4 fl oz Anthem Maxx *fb***

**83%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**



15 days after POST (6/28)

PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF *fb*

83%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS



# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 7/7

51 days after the PRE application

24 days after the POST application

The day of the LPOST application

The number in the upper right-hand corner is the average %  
giant ragweed control of 4 replications

**51 days after PRE (7/7)**

**Untreated Check**

**0%**



**24 days after POST (7/7)**

**PRE: 8 fl oz Authority Supreme *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**72%**



**24 days after POST (7/7)**

**PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**72%**



**24 days after POST (7/7)**  
**PRE: 25 fl oz Authority Elite *fb***  
**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**72%**



24 days after POST (7/7)

PRE: 25 fl oz Authority Elite + 6 oz Metricor DF *fb*

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS

72%



**24 days after POST (7/7)**  
**PRE: 6.4 oz Authority First *fb***  
**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**71%**



**24 days after POST (7/7)**

**PRE: 6.4 oz Authority First + 6 oz Metricor DF fb**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**70%**



24 days after POST (7/7)

PRE: 1 pt Kyber fb

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS

67%



**24 days after POST (7/7)**

**PRE: 6 fl oz Zidua PRO fb**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**71%**



**24 days after POST (7/7)**

**PRE: 29 fl oz Boundary *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**72%**



24 days after POST (7/7)

PRE: 4 fl oz Anthem Maxx *fb*

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS

74%



**24 days after POST (7/7)**

**PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**

**72%**



# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 10/11

The number in the upper right-hand corner is the average %  
giant ragweed control of 4 replications

**End of Season (10/11)**  
**Untreated Check**

**0%**



**End of Season (10/11)**

**PRE: 8 fl oz Authority Supreme *fb***

**95%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**



**End of Season (10/11)**

**PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF *fb***

**93%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**



**End of Season (10/11)**

**PRE: 25 fl oz Authority Elite *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**91%**



**End of Season (10/11)**

**PRE: 25 fl oz Authority Elite + 6 oz Metricor DF *fb***

**89%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**



**End of Season (10/11)**

**PRE: 6.4 oz Authority First *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**100%**



**End of Season (10/11)**

**PRE: 6.4 oz Authority First + 6 oz Metricor DF *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**100%**



**End of Season (10/11)**

**PRE: 1 pt Kyber *fb***

**97%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**



**End of Season (10/11)**

**PRE: 6 fl oz Zidua PRO *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**98%**



**End of Season (10/11)**

**PRE: 29 fl oz Boundary *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**96%**



**End of Season (10/11)**

**PRE: 4 fl oz Anthem Maxx *fb***

**95%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**



**End of Season (10/11)**

**PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF *fb***

**92%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

